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SCHOOL AND SOCIETY

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Volume XXV | SATURDAY, MARCH 5, 1927 | Number 636

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THE SCIENCE PRESS

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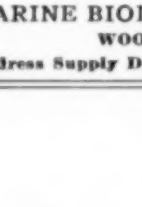

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SCHOOL AND SOCIETY

Volume XXV SATURDAY, MARCH 5, 1927 Number 636

ENGLISH SPORT IN ENGLISH EDUCATION

IT was a wise and kindly official at Whitehall who in commenting on the aims of education in England said, "You see, we try to turn out all-round men, who can play games, but not too well, and who are not one-sided." This is the key not alone to English school and university education, but to English school and university sport as well.

Most British games are of ancient and in many instances of popular origin. Track and field sports, such as running and jumping, may have come to England with the Romans, and a form of football was used by the Roman Legions. There are indications in illuminated manuscripts of the Middle Ages that cricket was first played by monks. Probably the grammar schools of the sixteenth and seventeenth centuries knew team games. Tennis, of course, is of ancient if perhaps not of truly popular beginnings. Modern boat racing was founded in 1715 by the comedian Thomas Doggett as a sport for professional watermen, and Doggett's Coat and Badge are still awarded. The sports and games for which English people congregated at fairs or on most village greens, although they appear to be nearly extinct in this connection, existed apparently continuously for centuries. Thus sport had undergone a wide development among all classes before the public schools began to form the modern British tradition of sportsmanship, and the aura of that tradition, so dear to English hearts, had already begun to envelop it.

Since at least the early years of the nineteenth century, the public schools have been the nurseries of English sport. The beginning of modern Rugby football can be dated definitely 1823, when William Webb Ellis, of grateful memory, "first took the ball in his arms and ran with it," and writers, recent and older, have called the public schools *fons et origo* of the Rugby Union Game. With regard to rowing, as early as 1811 Eton had a ten-oared boat, and in 1829 she met Winchester on the Thames for the first time. These examples are sufficient to indicate the fact that inter-school contests were well rooted, and certainly the public schools had molded the beginnings of the Englishman's sporting code by the end of the first quarter of the nineteenth century.

Now, the Cambridge and Oxford of those days were institutions where old public-school boys and a very, very limited number of others continued their pleasant associations for a few years more. Certainly by 1825 rowing and probably some of the games had found places as college and university contests. In 1823, as Lehman notes, Christ Church men "used to run on the bank alongside the Brasenose boat shouting 'No hired watermen' "—one of the first protests against professionalism in college sport. Records of the head of the river date at Cambridge from 1829 and at Oxford from 1836. The first Oxford-Cambridge eight-oar race was rowed at Henley in 1829. The sport that had been the product of the English climate, of the popular contests on the village green, and perhaps also of the grammar schools and their matches became a part of English public-school and university tradition in the earlier eighteen hundreds.

Just as Englishmen have regarded edu-

cation as a process in which the most important unit is the individual, so too with sport. The Englishman plays his games primarily for his own enjoyment; he insists that the diversion that contests provide shall contribute to his own pleasure in life; and the experience that he enjoys in youth as a player carries on into his later years. The 45,000 persons who witness the Oxford-Cambridge Rugby football match at Twickenham are mostly men who are or have been more or less expert players and who for the nonce are watching others play. The spectators who line the Cam for the "Mays" and the Isis for "Summer Eights," the crowds that flock to Lord's for the Eton-Harrow or the Oxford-Cambridge cricket match, the numbers who gather on any football or hockey field in England, though they may be attracted partly by the spectacle and the social sensation, attend primarily because they have had experience and have known enjoyment in sport each for himself. As both player and spectator the American inclines to be gregarious; the Englishman is an intense individualist.

To this individualism the public school contributes much. Every such school, great or small, endeavors, usually with sincerity, to place its games in the hands of its boys. Its organization into boarding houses provides almost ideally for the development of that house loyalty which ultimately finds expression in intra-mural sport. When schoolboy pride in a house led to rivalry, rivalry to banter, and banter to fights, doubtless masters welcomed athletic contests as the first handy substitute for war. At most public schools games are compulsory. Even where they are not, schoolboy opinion amounts practically to compulsion. "Compel boys to take part in games?" said one headmaster. "No. We don't compel them. But they had jolly well better play just the same." Coached by older boys and by the same masters as give them classroom instruction, they learn the rudiments of games very young, and as they grow older they receive into their hands more and more of the responsibility that sport involves. It is true that few public-school boys shoulder so great a burden of duties as that which falls to the captain of the boats at Eton, who has the custody of the sports funds of the school, but every captain of a team, every secretary of a sports club and every prefect and assistant prefect feels his share and learns how to act under it.

Of course, the picture has its shadows. Not a few voices have been raised against the "athleticism" of English public schools, the "cult of games," and the "blood system." There are said to be many masters who, being ex-champions or old university Blues, and having received their school appointments largely for these reasons, aim only at their own pleasure while teaching their boys on the playing fields. Cricketing masters are reported to "bowl at the nets" to boy batsmen only for their own exercise and enjoyment. Games committees are accused of usurping too much of the direction of schoolboy sport and of tyrannizing like the pedants that they are over their young charges. Strictures such as these are laid rather frequently and none too gently upon the system, but the protests are little heeded by the generality of public-school and university men, who, since they body forth the results of a long-standing system, are loath to see it changed. And at all events the fact remains that English public schools in their own very particular fashion use sports and games to develop certain traits of schoolboy character that stand out in the "public-school type" and have their traditional importance in most walks of English life. The best exponents of that type are held to be boys and men who have learned to play at their games and to en-

joy the process of playing more than the results.

From a public school an English youth may go up to Cambridge, Oxford, or more rarely some other university, or he may enter upon training for a profession, like the army or the navy or medicine, or he may go directly into business. If he elects to attend either of the older universities, he will find that his skill at games is of immediate use to him, and in the majority of cases he avails himself of his opportunities in his new environment.

Probably as many as nine tenths of the approximately seven thousand undergraduates at Oxford and Cambridge are old public-school boys. The remainder are mainly Rhodes scholars, Colonials and graduates of day schools who have won open, college or Board of Education scholarships in competition. The undergraduate bodies at both of these older institutions are thus predominantly of the public schools.

In addition to being one in a large group whose antecedents have much in common, the public-school graduate at Cambridge or Oxford finds in the system of colleges that compose the university the foundation of a common life that bears many resemblances to life in the houses he has left behind at school. The colleges form the backbone of many systematic, if not highly systematized, series of contests that may well give the undergraduate much ado to choose the sports in which he will participate. More important still, the college is the unit in which an undergraduate's interests are centered and by which his loyalties are roused.

Cambridge and Oxford force no man to take instruction in physical training, and however rigid may be their regulations regarding many aspects of the undergraduate's private life, he is under no compulsion to participate in sport. But he has usually acquired the habit at school, and even if, as one Oxford undergraduate estimates, "it is a wonder if fifty per cent. of us come out regularly for any sport," he is likely to find his way to a college playing field or to the river on most term-time afternoons. Nor is it usual for an undergraduate to specialize over-much in one branch. There have been as many as a hundred triple Blues in the annals of Cambridge and Oxford athletics, and the man who plays Rugby for his college on one day often plays hockey on the next and is to be found at the river on a third. Given only the desire to participate in college sport, there is no lack of opportunity.

The control of English college sport bears some external resemblance to the system of general athletic associations that prevail in so many American colleges and universities, but this comparison is superficial. Each Oxford and Cambridge college has its amalgamated clubs, which group together under one organization all the teams that represent the college, the college papers, the reading room and other interests. By this means the undergraduate's responsibilities for these matters are placed where Englishmen believe they belong—upon his own shoulders. Such a system would probably be impossible were it not for the common life that exists in the courts and quads of the colleges and the resulting community of interests in which undergraduates and members of the staffs, the "dons," all share. Aside from providing a playing field, no college corporation takes a very formal regulative interest in undergraduate sport. For each amalgamated club one don is chosen by the undergraduates to act as custodian of the funds, and this office of honorary treasurer carries with it a seat on the amalgamated club committee. In most such bodies the don or dons are outnumbered ten to one; if a debated matter were to be decided by a vote and undergraduates and dons voted as blocs, the dons would be nowhere.

Whatever control the college authorities exercise is applied through the friendly advice and good offices of the honorary treasurer. Moreover, graduate standing entitles no man to a voice in undergraduate affairs. The sum of the matter is that undergraduates control their own college sport and undertake practically all the duties that its management implies. The colleges, on the other hand, are hospitable to sport because of its socializing and maturing influence upon the undergraduates in whose hands it rests.

College sport is the gate of honor to university sport. If an undergraduate does well for his college on team or crew, his captain recommends him to be called out for a 'varsity club. The principle of letting undergraduates develop their own sport which, as already indicated, obtains in Cambridge and Oxford colleges, is characteristic in slightly modified form of the branches in which teams represent the universities. The absence of paid coaches, which reflects the British amateur tradition at its best, extends to all university sport except cricket, where hired groundsmen give nominal instruction by "bowling at the nets," track athletics, for which trainers are employed, and boxing, which also has its professionals. Coaching and the developing of teams are in the hands, first, of undergraduates, who are joined, secondly, by dons as the season progresses, and later by graduates and Old Blues, especially during the weeks before Oxford-Cambridge matches or races. For both college and university sports, players provide their own equipment. Nor is a 'varsity player debarred from representing his college in any match. Players in all contests are chosen by captains of teams, and there have been many instances in which the proffering of advice concerning the composition of a team on the part of a coach has led the undergraduate captain to assert his powers firmly and unmistakably. If to an American such arrangements savor of informality and lack of concentration, it must be recalled that formalized intensity is not numbered among the aims of British sportsmen. Even on teams representing the older universities, Englishmen "insist upon playing at their games."

Whereas college athletic clubs are grouped together for purposes of administration, university sport clubs are independent autonomous bodies, each with its own committees, undergraduate officers and don treasurer. University clubs of this nature as a rule are not prosperous; only Rugby football pays its own way from gate receipts and assists other clubs as well. The prosperity of Rugby at Cambridge, for example, is shown not only by its grants to other clubs, but also by its assistance to Cambridge House, a London settlement, and its offer, reported last autumn, to honor the Reverend Canon J. H. Gray, of Queen's, by endowing a university lectureship in his name. At both Cambridge and Oxford there exists some jealousy of "rugger," and proposals have been advanced to amalgamate all the clubs, but the step does not appear imminent. Both universities pay little and rare official attention to sport. The result is that, just as in the case of college sport, university athletics are controlled by undergraduates guided, upon request, by dons.

There can be little doubt that the absence of very much paid coaching at Oxford and Cambridge contributes to the casualness with which sports and games are undertaken and regarded. Other factors in this attitude are lack of official compulsion, the traditional absence of specialization in one branch of sport by the individual undergraduate, the emphasis upon scholastic performance as the guiding principle of university life, and especially the Englishman's insistence that athletics are to be enjoyed. Probably the responsibility for

the conduct of sport touches as many as from 15 to 18 per cent. of the undergraduate bodies. Most of these men are included in the 70 or 75 per cent. who take active part in games and contests of all sorts. These estimates are conservative, but they have deep significance in relation to the casual spirit in which sport for the most part is undertaken. On the other hand, a study of Cambridge and Oxford honors lists justifies the estimate that at least 72 per cent. of all undergraduates are reading for honors, a marked change since the war. Moreover, a growing number of Oxford colleges to-day admit no undergraduates who do not read for honors. Such figures are added proof that, by and large, sport and study at the older English universities are not mutually exclusive, a fact which is further established by hints to the effect that first-class honors are seldom if ever awarded to men who have not done something with games and sports during undergraduate days.

In contrasting the attitude of the American toward training with that of the Englishman, Major Beith suggests that the American's motto is "thorough," and that in preparation for contests he is likely to take measures that the Englishman regards as "not quite sporting." On the other hand, the American thinks of the Englishman's training as lacking in rigor. Only during the weeks before the Oxford-Cambridge match or race does really serious work begin, and even then it is due only to an intense, almost bitter, but always good-mannered rivalry between the two universities. For the most part the older coaches are critics, not active expounders of strategy and play. Undergraduates are expected to develop their own powers as athletes, each for himself.

To many Americans, Cambridge and Oxford have long appeared as ideal in their attitude toward sports, and in some respects they are. Yet it is wholesome to remind ourselves of other views. University Blues are, of course, sources of pride to colleges. Certain colleges have been accused of catering to athletes, using open scholarships to attract them, and retaining them upon their books inordinately long. Such "idle and brainless youths" and other types of loafer are said to undermine scholastic standing. Favoritism in the selection of crews has been charged. Sporting dons are taxed with forgetting their academic dignity in their desire for the athletic supremacy of their colleges. Such charges strike with a ring of familiarity upon American ears. Although recognizing the presence of abuses in sport at the older English universities, we can still appreciate the ensemble as essentially sound.

We turn now to a brief consideration of the day and secondary schools and the newer or, as they are sometimes called, the modern universities.

It has already been pointed out that the path of many public-school boys leads to Cambridge or Oxford. On the other hand, the boy who avails himself of the more nearly popular facilities for education that England affords—the public schools being regarded as essentially aristocratic—attends a day or a secondary school controlled and regulated through treasury grants administered by the Board of Education and thereafter may proceed, if his attainments be sufficiently high, to one of the newer universities. Not a few competitive scholarships, however, enable certain selected former day boys to attend the older institutions.

Since the reorganization of the board of education in 1902, team games and contests have developed in English day and secondary schools to an extent previously unknown. For this development, the basis has been the "house system," the organization of the boys in a given school into groups, called "houses," although in most

instances the physical structures are lacking, thereby to stimulate the internal loyalties necessary for intra-mural games. In this respect, and perhaps in many others, day and secondary schools have followed the public schools. The loyalties thus engendered may be of artificial development rather than of natural growth. But they are potent, and the prefects in charge of houses at day schools are no less able than those in corresponding positions at public schools. The close contact of masters who oversee "houses" with their boys, the better tone in the day schools, the healthy athletics, are to be numbered among the best fruits of the "house system."

The former day boy who attends one of the newer higher institutions, like King's College or University College, London, or the University of Birmingham, Bristol, Leeds, Liverpool, Nottingham or Sheffield will find sport confined to inter-university contests and the preparation for them. The living accommodations provided by these newer institutions not being numerous, and in some instances being absent altogether, the great majority of the students live at home or in private boarding houses. The result, of course, is that what loyalties exist are concentrated, through the university unions and guilds of students, upon the idea of the university. It is sometimes only with difficulty, arising partly from the lack of suitably developed playing space, that programs of intra-mural contests can even be arranged, and not many students—perhaps not more than 10 or 15 per cent.—take part in athletics, while the duties of management appear to gravitate toward a willing few. Yet many administrative officers of newer universities would gladly see athletics further developed. Indeed, the lack of such development and facilities gives constant concern. A number of university courts and private donors are providing funds for the extension of sport. In connection with projected future developments, there appears to be little intention on the part of university authorities of changing the essential features of control, which now rest, almost as thoroughly as at Oxford and Cambridge, in undergraduate hands.

Few Britons understand why athletics present a serious problem in American schools, colleges and universities. The Englishman takes university and school athletics for granted, just as he takes other forms of recreation. With the insularity that is one of his best and at the same time one of his worst characteristics, if he has read of the fabulous sums paid to American coaches, professional athletes and athletic directors, he is likely to refer all our difficulties to our plethoric wealth. Sport thrives in English education because it is an essential instrument in the educational process as he understands it. Athletics provide for schoolboys and university men a training which is carried over into their later years and contributes to the wise use of leisure. Perhaps even more important, the maturing under responsibility that sport implies is regarded as of value in developing the habits and powers of English youth.

Howard J. Savage

The Carnegie
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THE TRAINING OF A RESEARCH WORKER IN EDUCATION

The competent research worker in education is one who can recognize truth when he sees it and who knows how to proceed to find truth in regions hitherto unexplored. To recognize truth when one sees it does not imply the possession of some occult power of truth discernment; it means the mastery of detailed processes of analysis, the possession of definite standards of

judgment and friendly familiarity with the materials and methods, including their limitations, that are used in establishing knowledge in a particular field.

The matter may be made clear by noting what a diamond expert does in appraising a stone. He places it on tested scales and records its weight, accurate to one hundredth of a carat; he examines its color, preferably under a north light, and pronounces it a jager, a wesselton, a crystal, a capes, a brown, a green or a yellow stone; he places it under his jeweler's loupe or magnifying glass and searches for carbon spots, cracks, clouds, bubbles or other flaws; and finally he studies its proportions to see whether its depth is six tenths of its diameter, one third above the girdle and two thirds below, and whether its fifty-eight facets are perfectly cut. When an honest diamond expert makes such an examination and checks his results, we very properly accept his findings as true.

The educational critic's procedure is logically much the same when he attempts to appraise a definite piece of research work. Suppose, for example, that we announce that we have conducted a controlled experiment and found that children learn to spell better when the group studies from a word-list that the teacher has written on the board than they do when each child studies from his own book. Before accepting our conclusions the critic wants to know these definite things: (1) Were all learning conditions the same, or practically so, save that the control group had books and the experimental group had none? (2) If learning conditions were equalized by teaching one group with books for ten weeks and then switching the books to the other group for the next ten weeks, did the time of year have any effect upon the relative results? (3) Were the teachers unbiased and equally skillful in teaching with or without books? (4) Were the children tested by some one adequately trained in educational measurements? (5) What is the probable error of the difference of the mean accomplishments of the two groups? (6) Were the results the same at different grade levels? (7) Were the gains of bright, average and dull children all in harmony with the general result of the experiment? Now if our experiment was conducted according to approved canons of educational research, our findings may very properly be credited with a presumption of truth.

Before passing to the constructive or creative aspect of a research worker's activity, we turn aside to remark that if graduate faculties of schools of education were doing a better job, we would now be saved some unnecessary labor. Graduate faculties provide no competent guidance for their students, and apparently they are untroubled about it. To the critic it seems that it would be a small job for a big strong faculty to examine at least a hundred concrete examples of alleged creative graduate work; describe lucidly the methods of their construction, and then to devise a scale of merit for measuring the quality of master's and doctor's theses. The construction of such a scale would be relatively easy, since in this case one of the major difficulties of scale construction would hardly appear at all, namely, the location of an acceptable zero point.

As the matter now stands, each autonomous department faculty conducts its courses in its own irresponsible way; students blunder about trying to discover the meaning of graduate work; theses are judged without reference to objective standards; and now we are obliged to attempt to tell what a constructive worker does when he applies his tools to the solution of a research problem.

Our appropriate procedure naturally is to catch the temporal sequence and follow the order of events from the beginning of investigation through the discovery of an

interpretative principle to the final act of verification. We shall adopt this simple division, therefore, and consider research as a three-step affair: investigation, discovery and verification; bearing in mind that any division of a temporal sequence is arbitrary.

The process gets under way in the formulation of a definite problem; nothing can be investigated in general. A graduate student, for example, becomes interested in the effect of temperature upon the growth of animals and decides to investigate it. He immediately finds that his study can not compass the whole range of the XII phyla, so he plans to investigate the effect of temperature upon the growth of the black bear. After recording carefully measured somatic changes under varying temperatures during a six-months' study of a large colony of black bears, he discovers that the most striking change is in the growth of hair, especially on the ventral side of the phlegmatic animal. So he states his problem in this final form: "The Effect of Temperature Upon the Growth of Hair on the Belly of the Black Bear."

In technical language this process is called delimiting the subject; in every-day vernacular it is seen to be the simple matter of cutting a field down to workable dimensions and then fencing it in. At any rate, it is the first step in any research study, and if well done it presages a merry journey over the rest of the way. For a criterion is now established for judging the pertinency of data.

When an adequate body of valid and representative data has been collected, the process of analysis begins. Here are employed devices of classification to show central tendencies, degrees of dispersion, relationships between series of paired measures and indices of the probable reliability of results when extended to the larger populations from which samples are drawn.

Imperceptibly investigation leads to discovery, even though it be like the discovery of the hunter who digs to the end of a hole and finds nothing there. When fruitful, however, the facts are tied together by a binding principle and a new instrument of control is made available for use in related situations. Verification follows naturally through application, and thus the inventive process of systematic research eventuates into the practical fields of routine experience.

This highly generalized and sketchy description of the methods of criticism and research affords but a hint of the appropriate training to fit one for the work. It does suggest, however, even though remotely, some aspects of the general preparation that every well-trained research worker should possess.

First is a basic naturalistic philosophy. It is not urged that he be a disciple and advocate of any fixed philosophical system, but it is affirmed that he must be acquainted with that aspect of the history of thought called philosophy and that he must understand the fundamental assumptions that science makes concerning the world in which it operates. These primary metaphysical postulates are three: diversity, interaction and change. An open-eyed glance at the objective world reveals a great diversity of energies: Sun, moon and earth, with its seasonal, nocturnal and tidal rhythms; gravity, chemical affinity and vitality; home, church and state; agencies of production, transportation and trade; Henry Ford, the Jews and the Ku Klux Klan; bodies of strength and beauty that weaken and decay; souls that "last as a strain of music lasts and go where it goes"—all are energies in the panorama called the world. They interact. Sometimes they cooperate; sometimes they clash; eternally they move, a never-resting change.

Heraclitus sensed it twenty-five centuries ago and said "panta rei," all things flow. A century later Democritus announced that the changes manifest in the universal flux are mechanical, and thus the fundamental framework of science was completed for all time.

It is interesting to speculate how different would have been the intellectual and moral history of the western world had the naturalistic scientific method implicit in the insight of Democritus caught on instead of the literary dialectic of Plato. Christianity would hardly have captured the western mind; Augustine would have taught science instead of rhetoric and written on the physics of the radio instead of on the metaphysics of his sin.

Returning to our topic, it is a mechanical world, we repeat; if not wholly so, at least mechanical in so far as it affords a field for science. Mechanical changes are repetitive and therefore predictable. So science isolated selected forces, discovers how they operate under various conditions, and writes formulae describing their characteristic ways. It is man's only means of effectual control.

We are now ready to state that the training of a research worker in education should include a substantial year of philosophy, with emphasis upon its naturalistic aspects and especially upon the instrumental logic, taught through an examination of selected examples of notable scientific work.

The next feature of the necessary training that we would prescribe is a year of mathematical analysis on the college level. This is necessary to an understanding of the inter-relatedness of things, which is investigated by means of mathematical analysis through application of the function concept. In simpler terms, this is the study of how things depend on each other, how they vary together, how a change in one effects a corresponding change in the other. How can a man know the beginnings of science without knowing these things?

The other reason why we prescribe a year of analysis is that the student may know and appreciate one of the most powerful instruments of understanding ever devised by the mind of man: namely, the Newtonian-Leibnitzian infinitesimal calculus. This is not simply a branch of technical mathematics of interest and importance only to the physicist and the bridge-builder. It is a part of the technical language necessary to an understanding of the complex inter-relations of the dynamic world in which we live.

The final prescription that we would make in the curriculum of a research worker in education is a year of statistics, with emphasis upon statistical analysis, taught through critical appraisals of educational research work. Statistical computation is important and should be taught thoroughly; but it is distinctly instrumental and therefore should be subordinated to its proper place as an aid in the analysis of aggregates of related facts.

To teach this course to students having had a year of mathematical analysis would be an easy and satisfyingly successful job, especially if they were undergraduate students. Our observation of the attempt that is now being made to give graduate instruction to students who have no sound knowledge of essential things leads us to wonder whether it is really possible to teach such students anything. Certainly the prevailing attempt is redolent of failure.

While we have attempted to examine our problem from the viewpoint of a graduate school of education, we will point out in closing that attitudes and interests and trained skill in applying scientific techniques can not be grafted onto an elementary and secondary and collegiate training that has developed mind chiefly in other ways. If science as method is really our way of understanding and controlling

physical and social forces, including our personal and associated lives, then the scientific attitude of mind must be religiously inculcated from the opening exercises of the first day of school.

But it is not so to-day. The science teacher is illiberally trained and his soul is uninspired. He must be born again! Then his face will glow with the light that must have shown in the face of the Apostle Paul as he described his enraptured vision of the more excellent way. We know that Paul was right, for all who live can see that faith and hope and love are not of the accidents of religion but are fundamental in the moral organization of the world. Likewise in its sphere science also is fundamental, universally so, and it will be properly taught only when science teachers realize that theirs is a prophetic rôle.

We would teach science therefore not only as subject-matter but also as method and vision, everywhere that inquiring minds aspire to learn. And in its office of highest responsibility, the university school of education, we would teach it with crusading zeal as man's means of controlling forces in the building of a better world.

JAMES C. BAY

SCHOOL OF EDUCATION,
NEW YORK UNIVERSITY

EDUCATIONAL EVENTS

APPROPRIATIONS FOR THE LONDON SCHOOLS

A SUB-COMMITTEE of the London County Council Education Committee has submitted a report in regard to the expenditures to be made on the schools for a period of three years. The approval by the council of the program agreed upon is recommended "on the understanding that government grants no less favorable than those payable under the existing grant system will be forthcoming."

The total capital expenditure is estimated at £3,020,000. The totals of maintenance expenditure are: 1927–28, £278,800; 1928–29, £558,900; 1929–30, £839,100, increasing ultimately to £1,014,400. The abnormal increase in 1928–29 is due to the addition of £365,000 a year which the council has to pay as its contribution towards the Teachers' Superannuation Scheme. This contribution begins in that year and continues thereafter.

The sub-committee's forecast of the total expenditure on education in London for the next three years is: 1927–28, £12,769,357; 1928–29, £13,387,715; 1929–30, £13,589,510. The education rate for 1926–27 is 2s. 2¼d. The additional cost of the program and the change-over in the teachers' superannuation scheme is stated to be approximately equivalent to the following rateable increases: ¼d. in 1927–28; 1½d. in 1928–1929; 2¼d. in 1929–30.

Apart from the modernization of elementary schools, the proposals of the sub-committee include for elementary education four new central schools and one enlargement; one day open-air school and 20 more open-air classes; more school journeys, educational visits, handicraft and domestic economy centers, improvement of ambulance service, a new school for mentally defective children and another school for tuberculous children. For higher education the program includes increased grants to university institutions; four new secondary schools, and enlargement of 15 others; alteration and extension of 13 technical institutes; five additional evening institutes for men; new institutes on housing estates; one new day continuation school, and award of additional scholarships.

The council advised that the scheme for the provision of new elementary schools, which was approved in 1912 but was interrupted by the war, will be completed by 1933 if the same rate of progress as is now proposed is maintained. The provision for secondary and central school education for London will be increased by 1930 to 16.7 per 1,000 inhabitants, as compared with 14.6 per 1,000 inhabitants at present.

The estimates of expenditure for the year 1927–28 provide for a gross expenditure on maintenance, etc., of £12,769,357, being an increase of £238,091 compared with the estimated expenditure on this account in the current financial year. The estimate of gross expenditure is made up as follows: Elementary education, £9,878,642; higher education, £2,863,770, and general and special county expenditure, £26,945.

THE SCHOOL SYSTEM OF THE PHILIPPINE ISLANDS

ACCORDING to the latest figures just made available by the War Department, there are 1,130,366 pupils enrolled in the 7,789 public schools in the Philippine Islands. This is a considerable increase, when compared with the 791,626 pupils in the 5,944 schools of 1920, and the 621,115 students in the 4,291 schools of 1915. This marked increase in the number of schools and pupils has been made possible by virtue of the ever-increasing desire of the Filipinos for education, and the wise expenditure of insular, provincial and municipal appropriations for public education, which amounted to $11,994,406.19 in the last fiscal year.

It is stated that there are 101 public high schools in the Philippines with a total enrollment of 1,238 teachers and 55,156 pupils. One insular normal school is located at Manila. Besides this, there are eight provincial normal schools and eight provincial high schools offering four-year normal courses. The institutions of higher learning that receive insular aid are the colleges of the University of the Philippines.

The Filipino people enjoy the distinction of having the oldest university under the American flag. The University of Santo Tomas, situated at Manila, was established in 1611. This university, therefore, antedates Harvard, the oldest university in the United States, by fully a quarter of a century.

With the beginning of the American occupation, one of the first things accomplished by the army was the establishment of schools throughout the islands. When the civil government was inaugurated an act was passed establishing the Bureau of Education, which now constitutes one of the bureaus under the Department of Public Instruction and continues to supervise the public educational system of the islands.

Those first American teachers suffered the hardships incidental to all types of pioneering. During the school year 1902–1903, before the American authorities were able to inaugurate an effective sanitary system, and while the country was still suffering the after-effects of war, five American teachers died of small-pox, four of cholera, and four at the hands of bandits. Sent to isolated places to work among people to whose language and customs they were total strangers, in some cases without books or supplies, these pioneer teachers found many things to do that were not taught in any normal school or college of education. But intense earnestness on the part of the American teacher and keen desire for education on the part of the Filipino soon brought order out of chaos, and it was not long before a smooth-running system of education, free from hampering traditions, cleared the way for definite progress.

The Filipino teaching staff began with the hold-overs from the Spanish régime. At first these teachers studied English under the American teachers in the afternoon; and the next morning they taught the younger pupils what they had learned the previous day. Under this strenuous program, many dropped out, but many others developed into splendid instructors.

Gradually there was secured an army of Filipino teachers now numbering 25,800. Practically all the elementary school principals, a number of the high-school principals and division superintendents and one of the two directors of the Bureau of Education are Filipinos. This development of Filipino instruction personnel is one of the most conspicuous achievements of the American system.

In accordance with the existing laws of the Philippine Islands, primary education is given entirely free for all children between the ages of seven and fourteen. Secondary education is given partially free, a moderate tuition fee being required in some secondary schools for partial support. The school year extends from the early part of June until about the end of March.

Education in the islands is not compulsory, but in all public schools physical training is compulsory for able-bodied pupils.

The Honorable Eugene A. Gilmore is vice-governor and secretary of public instruction and Luther A. Bewley is the director of education.

THE ANNUAL REPORT OF THE DEAN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES OF HARVARD UNIVERSITY

IN his annual report to the president of Harvard University, Dean George H. Chase, of the Graduate School of Arts and Sciences, stressed

the rapid growth of the enrolment in the school. It has been suggested, he said, that limitation of enrolment may become necessary in the near future, but he favors an increase in the teaching staff as a more reasonable solution of the problem should it become acute.

"In view of the present demand for teachers and research workers in many fields, due to the remarkable growth of colleges and universities and the expansion of business, it would be a pity to diminish the supply at the source."

A study of the information brought together by a compilation of the lists of doctors of philosophy and doctors of science who have received degrees in course since 1873, recently published, brings out a number of facts. Among them the following: "Between 1873 and 1909, 608 degrees were conferred; between 1909 and 1916, 355; between 1916 and 1926, 543. These figures undoubtedly reflect the growing appreciation of the importance of training in research in all the many fields of knowledge."

Although by far the majority of those listed are or have been teachers in colleges or universities, there are a large number engaged in research apart from teaching as well as several high officials of important business organizations, 18 clergymen, 15 presidents of universities or colleges, 14 men engaged in editorial work, 7 librarians, 6 physicians, 4 men in diplomatic or consular service, 2 members of Congress, 2 United States senators and a prime minister of Canada.

"The wide geographical distribution of the holders of the doctor's degree is also noteworthy," said Dean Chase. "Nearly every state in the Union and Province of Canada is represented, as well as a dozen countries of Europe, Nicaragua, Uruguay, Chile, Hawaii, Philippine Islands, Canal Zone, Egypt, South Africa, India, China and New Zealand. Through such a wide distribution of its doctors, Harvard University exercises a powerful influence over methods of instruction and research, and the training of these men is surely one of the most important services performed by the university."

THE INSTITUTE OF CHILD WELFARE RESEARCH

THE Institute of Child Welfare Research of Teachers College, Columbia University, entered on its third year last fall. The previous year had seen the completion of the work of the acting director, Dr. Otis W. Caldwell, the beginning of that of the new director, Dr. Helen T. Woolley, and the establishment of the institute in a building of its own, the Speyer School building at Lawrence Street, which was remodelled to suit its purposes.

The Institute of Child Welfare Research performs two functions—that of conducting research and that of training workers for various phases of work in child development. The fields of service for which the institute aids in preparing are: the teaching of child development in colleges and normal schools; the teaching of courses in child care in university extension programs and in high schools; nursery school teaching and administration; parental education; clinical work with young children, either in psychological clinics or in public health clinics, in which a knowledge of habit formation and behavior problems is stressed, and research in the problems of young childhood. In the preparation for all of these fields, students avail themselves of courses offered in the various divisions of the university, which relate to the mental development, physical development and the social backgrounds of child life. A bulletin in which such courses are listed has been published.

The institute is organized as an independent division in Teachers College, responsible directly to the dean.

Its internal organization, in addition to the administrative division, consists of two nursery schools and a research clinic in which young children are examined. A small service clinic, for the benefit of students with a major interest in clinical psychology, is also maintained. The institute has partial control over two other nursery schools, and uses various schools, clinics and institutions in and about New York City for observation or for research. In training students for parental education, it cooperates with the Child Study Association of America.

The staff of the institute consists of a director, pediatrician, a part-time physician conducting research, a nutritionist, a nurse, two psychologists and one part-time psychologist, two nursery school teachers, four assistant nursery school teachers, a social service worker, a household manager, a secretary and business manager.

STUDENT GOVERNMENT AT PRINCETON UNIVERSITY

THE Board of Trustees of Princeton University at their meeting on February 25, issued an order forbidding undergraduate students to own or operate automobiles. As a consequence the Senior Council at its weekly meeting resigned in a body. The fifteen members voted unanimously in support of a resolution taking this action in the form of the following letter addressed to the entire student body.

To the undergraduates of Princeton University:

WHEREAS, The status of student self-government at Princeton appears to us indeterminate at present, inasmuch as a decision vitally affecting undergraduate life has recently been reached with disregard for student opinion; and,

WHEREAS, We feel that the time has come for a definite understanding between the administration and the student body as to the actual power which shall be exercised by a student governing body;

We, the 1927 Senior Council, hereby tender our resignation to take effect at once.

In taking the action we wish it to be clear that we are expressing neither objection nor approval regarding the substance of the act of the Board of Trustees forbidding student ownership and operation of automobiles, but that we are expressing objection to the principle involved in its passage.

The ruling of the Board of Trustees follows:

After July 1, 1927, no undergraduate shall, while college is in session, maintain or operate an automobile within the Borough of Princeton or in the neighborhood thereof without the consent of the president of the university or the dean of the college.

As a result of the resignation of the Senior Council, *The Daily Princetonian*, the student newspaper, advocates a student referendum to determine the opinion of the undergraduate body concerning the type of government it wishes. It is proposed that three proposals will be voted upon—government as in the past by a Senior Council, government by a general student council and government by the administration of the university.

PROPOSED LEGISLATION AGAINST THE TEACHING OF EVOLUTION

AN anti-evolution bill of the usual form, to prohibit teaching of evolution in any state institution or public school, was introduced by one of the representatives at the present session of the North Dakota legislature. It was referred to the committee on education of the assembly, which is one of the large and important committees; in due course of time a hearing was held before the committee, at which several representative clergymen of different denominations (from churches in or near the capital city) spoke for or against the bill, most of them against it. The committee reported to the assembly on February 19 a recommendation against the passage of the bill. No comment was made by the representative who had introduced it or its other supporters, except one inquiry as to why it had been dealt with so summarily. To this the chairman of the committee replied that he was not authorized to state why the committee had killed the bill, since no member of the committee had given any reason, but that the committee vote on its recommendation was unanimous. However, briefly expressing his own opinion in a word, he said that it seemed to him that such a bill was an attempt to have a legislature make declarations concerning the supposed truth or falsehood of theories which were entirely outside their scope or province as a legislative body.

Thereupon the committee report was unanimously adopted by the House of Representatives without dissenting voice.

Unwillingness of everybody in the general assembly of North Carolina to introduce the Hartness substitute for the Poole anti-evolution bill has destroyed the last hope of the advocates of the bill for any sort of legislation during 1927. "House bill 263, known as the Poole bill, is now on the calendar on a minority report." It is said that "The advocates of this bill, after careful consideration, have decided that they will not now press for this legislation. More than 15,000 citizens of North Carolina, from every part of the state, have petitioned this legislature to pass this bill for the good of the state-owned schools."

In California, Assemblyman S. L. Heisinger, who is leading the anti-evolution campaign, has addressed an open letter to members of both houses in which he says: "If our youth is taught he is descended from a brute, that there is no God, that he nor the rest of mankind has a soul,

then why should he value life, why should he care for the property rights of others, or why should he guard the good name or the character of another person?" Dr. William J. Cooper, state superintendent of public instruction, countered Mr. Heisinger's attack with a formal declaration of war on the anti-evolution bill, branding it as "ridiculous" and "a blow at education."

THE RETIREMENT OF DR. DAVID B. CORSON

THE Newark Board of Education, by a vote of 7 to 2, has passed the following resolution:

WHEREAS, David B. Corson, superintendent of schools of the City of Newark, having attained the age of sixty-two years, and having had more than forty-two years of service as a teacher in the State of New Jersey to his credit, is now eligible for retirement; therefore, be it

Resolved, That the Board of Education of Newark, in the County of Essex, hereby requests that David B. Corson, superintendent of schools of the City of Newark, be retired on June 30, 1927, and that a copy of this resolution, properly attested, be delivered to the Board of Trustees of the Teachers' Pension and Annuity Fund.

According to the New Jersey *Journal of Education* Dr. Corson is quoted in the local press as follows:

My whole time and effort have been devoted to the interests of the schools of Newark. I have labored unceasingly to advance those interests on an education basis. Personal considerations have always been secondary.

The school system of Newark is not excelled in the country. Its progressiveness is very generally acknowledged—more so outside than inside the city. My position among the educators of the country is not inferior to that of any. During the years I have had opportunities to go elsewhere to good positions, but I have remained in Newark because my children were born here and have been educated here.

Our friends are here. We have valued our associations and our home life in Newark too much to change our residence.

The Newark *Evening News* thus summarizes Dr. Corson's career:

During the thirty-three years in which he has been connected with the city schools, Dr. Corson has established and developed many features in the system which have been extensively copied. His first work in the school system here was as principal of the Ann Street School in 1896 after coming from Rahway, where he had been superintendent of schools.

In 1898 he was made principal of the Elliot Street School and was promoted to general supervisor six years later. After several years as an assistant superintendent Dr. Corson was appointed first assistant superintendent in 1914.

Although he had been filling the position for five years previous, due to the illness of Dr. Addison B. Poland, his predecessor, it was not until June 10, 1918, that Dr. Corson became superintendent.

The junior high school system as established here by Dr. Corson has become a model for other cities. Courses open to teachers, in which they may obtain college credits toward degrees, were founded here by Dr. Corson, Newark being the first city in the country to have such a school. Since its establishment the organization has developed into the Newark Institute of Arts and Sciences of the present day.

Despite the fact that he established the all-year schools in this city, Dr. Corson has opposed the work for the last three years, asserting that they are not a good thing for the system. This stand created friction between himself and several of his associates. Dr. Corson accepted the judgment of outside investigators who studied the all-year system here and approved it. Recently he supplemented his acquiescence with the presentation of a plan designed to work improvements in the all-year schools and weave them into closer contact with the system in general.

Special classes for defective children, including courses at the Hospital for Crippled Children, the platoon schools and the organization of the Federation of Parents' Association, are among his other accomplishments.

EDUCATIONAL NOTES AND NEWS

DR. WILLIAM MATHER LEWIS has resigned the presidency of George Washington University to become president of Lafayette College in succession to Dr. John Henry MacCracken.

DR. HAMILTON HOLT, formerly editor of *The Independent*, New York City, was inaugurated as president of Rollins College, Florida, on February 21.

WILLARD E. GIVENS, assistant superintendent of Oakland, Calif., was elected superintendent

of the schools of San Diego on February 3, to succeed Dr. W. J. Cooper, who resigned to become state superintendent of schools on February 1. William F. Ewing, principal of the Pasadena High School and Junior College, succeeds Superintendent Givens at Oakland.

DR. HARRY B. PENHOLLOW, administrative assistant at De Witt Clinton High School, New York City, has been appointed director of high-school organization, a position carrying a salary of $6,000 a year.

GEORGE C. CARROLL, principal of the high school at Terre Haute, Ind., has been elected superintendent of schools to succeed Superintendent J. O. Engleman.

SEVEN New York City district superintendents of schools have been named by the board of education. They are: Oswald Schlockow, principal of Public School 50, Brooklyn; Loretta M. Rochester, principal of Public School 3, Manhattan; Anthony Pugliese, principal of Public School 21, Manhattan; Herman Wright, assistant to Associate Superintendent Harold G. Campbell; Margaret Rae, principal of Public School 1, Manhattan; Emanuel F. Van Dam, principal of Public School 18, Richmond; William L. Rabenort, principal of Public School 55, Bronx.

DR. JOHN H. FINLEY, associate editor of the New York *Times*, formerly New York State Commissioner of Education, received the honorary degree of Doctor of Laws, and Charles Adam Platt, New York artist and author, the honorary degree of Doctor of Fine Arts, at the one hundred and first annual Washington's birthday exercises of the University of Pennsylvania on February 22.

DR. JAMES KENDALL, professor of chemistry in New York University, has been elected a fellow of the Royal Society of London.

THE Leslie Dana medal, awarded each year through the Missouri Association for the Blind to the individual who has accomplished most for the blind in the United States and Canada, has been awarded to Dr. Lucien Howe, of Buffalo, N. Y., past president of the American Ophthalmological Society, in recognition of his work of the establishment at the Johns Hopkins University of a research foundation with an endowment of $250,000.

THE first degree granted by the University of Reading, England, was conferred recently upon Mr. Alfred Palmer, president of the council, who was admitted to the degree of doctor of science *honoris causa*.

A GOLD cross for distinguished service in the reconstruction of the Polish department of education during the school year 1923–24 was presented to Marta Mazurowska, principal of Public School 13, Buffalo, on February 1 by the Polish vice-consul in Buffalo.

THE REVEREND MAURICE ROY RIDLEY, chaplain of Balliol College, has been elected to the first Rhodes traveling fellowship instituted last year by the Cecil Rhodes Trust to enable Oxford teachers to study in the United States and other countries overseas.

DR. OSCAR EUGENE OLIN, professor of philosophy and psychology at the University of Akron, celebrated his seventy-fifth birthday on December 3. For twenty-eight years he has served on the teaching staff of the university. He has been granted a leave of absence for three months and is spending the greater part of this time in California.

A LUNCHEON was given in San Francisco on February 19 in honor of Dr. Arthur S. Gist, of Washington, D. C., editor of the Year Book of the elementary school principals' department of the National Education Association, attended by more than 300 elementary school principals and educators of the San Francisco bay counties. Dr. Gist, as the principal speaker on the program, discussed standardization of elementary school principalships. Other speakers were Miss Helen Hefferman, commissioner of elementary education for California, whose subject was a "Code of Ethics for Elementary School Principals," while Dean W. W. Kemp, of the educational department of the University of California, spoke on "Professional Training of Elementary School Principals." A. J. Hamilton, of Berkeley, president of the association, presided.

A RECEPTION in honor of Miss Katherine D. Blake, principal of Public School 6, of New York City, was given by the Mothers' Club of

the school in recognition of the completion of fifty years service in the public schools of the city. Superintendent William J. O'Shea, District Superintendent Robert J. Frost, Morris E. Siegel, director of evening and continuation schools, and Huger Elliott, in charge of educational work at the Metropolitan Museum of Art, were among the speakers. The gathering was not only a personal appreciation of Miss Blake's work but also an expression of support for a project which Miss Blake has long urged—the establishment of a thoroughly equipped division in her school for practical instruction in applied arts. Resolutions were passed requesting the Board of Education to take under consideration the establishment of such courses in the school.

AN Associated Press dispatch from Dallas, Texas, reports, under date of February 26, that homes for retired school teachers are to be established by the National Education Association in accordance with a decision of the directors, who met in conjunction with the convention of the Department of Superintendence. It was voted to authorize the trustees to accept unconditional bequests and gifts to purchase sites, erect buildings, establish endowments and create a maintenance fund. A resolution was passed providing for the establishment of a trust fund to build and maintain the homes. The fund is to be known as Olive M. Jones Fund, in honor of Miss Olive M. Jones, of New York, past president of the National Education Association, who started the movement for teachers' homes four years ago.

PROFESSOR GEORGE ROBERT HARDIE, in charge of pre-professional education in the New York State Department of Education, has been elected first dean of the College of Liberal Arts and Sciences of Long Island University. Ralph Jonas, president of the Brooklyn Chamber of Commerce, has been elected chairman of the board of trustees, the other officers of which were chosen as follows: Vice-chairmen, James H. Post, president of the American Sugar Refining Company and chairman of the board of trustees of Adelphi College, and William C. Redfield, chairman of the executive committee of the Brooklyn Chamber and former United States Secretary of Commerce; treasurer, Matthew S. Sloan, president of the Brooklyn Edison Company and treasurer of Polytechnic Institute; secretary, Arthur S. Somers, president of the Long Island Chamber of Commerce and member of the Board of Education. Classes in the College of Liberal Arts and Sciences will open next September.

SAMUEL T. DANA, who has been director of the Northeastern Forest Experiment Station with headquarters at the Massachusetts Agricultural College for the past three years, has been made provisional dean of the new school of forestry at the University of Michigan.

DR. ALFRED OWRE, dean of the College of Dentistry in the University of Minnesota since 1905 and a member of the dentistry faculty since 1893, has resigned to accept the position of dean of the School of Dental and Oral Surgery in the new Medical Center of Columbia University.

DR. WILLIAM MARTIN PROCTOR, in charge of secondary education and teacher training at Stanford University, has been promoted to a full professorship in education, effective on September 1.

DR. LEE TRAVIS, for three years National Research Council Fellow in psychology and psychiatry, has been appointed assistant professor of clinical psychology and psychologist to the Psychopathic Hospital in the State University of Iowa. His work will be devoted mainly toward the direction of research within the field of speech correction.

AFTER encountering opposition lasting for two months, the Chicago City Council, by a vote of 28 to 11, has confirmed Mayor Dever's new appointees to the Board of Education—Dr. Otto L. Schmidt, Charles J. Vopicka, Walter J. Raymer and Mrs. Helen Heffernan.

THE University of Chicago has elected new trustees as follows: Eugene M. Stevens, president of the Illinois Merchants' Trust Company; Frank McNair, vice-president of the Harris Trust and Savings Bank, and Harrison B. Barnard, president of the H. B. Barnard Company, builders. The last two are alumni of the university.

A COMMITTEE consisting of Dr. J. B. Edmon-

son, of the school of education of the University of Michigan, Dr. J. W. Withers, of the school of education of New York University, and Dr. Frank N. Freeman, of the school of education of the University of Chicago, has been appointed by the National Association of College Teachers of Education to report on the equity of teacher placement and to deal with cases in which there are conflicting claims between individual teachers and placement agencies.

PROFESSOR DAVID SNEDDEN, of Teachers College, Columbia University, is on leave of absence during the spring semester. He plans to spend the time in Europe.

DR. HENRY SUZZALLO, who was recently dismissed from the presidency of the University of Washington, sailed on February 18 for a vacation trip to Australia. He is accompanied by Mrs. Suzzallo and Mr. and Mrs. Oscar A. Fechter, of Yakima, Wash. Mr. Fechter, a banker, was one of the three members of the board of regents of the University of Washington who supported Dr. Suzzallo during the fight to remove him.

PROFESSOR ALFRED E. LONGUEIL has returned to his post in the English department of the Southern Branch of the University of California at Los Angeles after two years spent in Europe as the only American member of the International Institute of Intellectual Cooperation of the League of Nations.

PROFESSOR FRANKLIN W. JOHNSON, of Teachers College, Columbia University, is absent on leave during the second half of this year. He and Mrs. Johnson will first visit Egypt, Syria and Palestine, and later Italy, Austria, Germany and France. Professor Johnson will attend and take part in two educational conferences in the Near East, and will visit schools of the more modern type in Europe.

PROFESSOR GUGLIELMO FERRÉRO, the historian, who had planned to make a lecturing tour in the United States visiting forty universities and clubs throughout the country, has written to his lecture manager to cancel his engagements, stating that Premier Mussolini had asked him "as a personal favor not to insist for the moment on going to America." "The government," the letter said, "seems to fear my passing the frontier. For the moment, therefore, I am virtually a prisoner in Italy." Professor Ferréro last December was refused a passport when he wished to visit Geneva.

DR. DAVID A. ROBERTSON, of the American Council of Education, addressed the Washington, D. C., Board of Trade on "The Educational Underworld." The Board of Trade, the Chamber of Commerce and other organizations in the District of Columbia are publishing the facts regarding diploma mills and have undertaken to improve the conditions under which educational institutions may be chartered in the District.

DR. K. S. LASHLEY, now of the Behavior Research Institute of Chicago, lectured at Harvard University on April 17 on "Intelligence and the Brain."

JOHN D. ROCKEFELLER, JR., was the principal speaker at the Alumni Day exercises on February 22 at Princeton University.

PROFESSOR GEORGE J. COX, of Teachers College, Columbia University, lectured at the Metropolitan Museum on February 26, on "European Pottery." The executive committee of the International Federation of Arts recently appointed Professor Cox a member of the committee of three formed to organize American participation in the Sixth International Congress for Art, which is to be held in Prague in 1928.

DR. T. F. LEW, dean of the faculty of theology of Yenching University, is lecturing in the United States with the object of increasing interest in Chinese missions. He emphasized the desirability of sending missionaries to China who are awake to the great demand among the younger Chinese for scientific instruction.

DR. HENRY S. LUCAS, assistant professor of history at the University of Washington, has been granted a leave of absence for the school year 1926–1927, having been awarded a Belgian fellowship.

THE REVEREND DR. LAFAYETTE CONGDON, a minister of the Methodist Church and for eleven years president of the Genesee Wesleyan Seminary at Lima, N. Y., died on February 23, aged eighty-one years.

EUGENE G. HUGHEY, deputy superintendent of schools in Buffalo, N. Y., since 1912, died on February 1. He had been connected with the Buffalo public school system for thirty-two years.

DR. FRANK SHELDON FOSDICK, teacher in the public schools of Buffalo, who retired as principal of the Masten Park High School last year when he celebrated his fiftieth anniversary, died on February 27.

FRANK J. HUBBARD, a municipal engineer and a member of the Plainfield, N. J., Board of Education since 1915 and its president since 1923, died on February 24, aged fifty-nine years.

LAWRENCE AMOS MCLOUTH, professor of German at New York University since 1895, died on February 24, aged sixty-three years.

PROFESSOR HUGH M. KINGERY, for twenty-five years professor of Latin at Wabash College, Crawfordsville, Ind., died on February 21 at the age of sixty-six years.

THE London *Times* reports the death, at the age of sixty-nine years, of Sister Marie-Flavie, one of the first French woman missionaries to go to India. She was appointed Provincial Superior of Bangalore, and was head of a European school of 1,000 children, together with a native secondary school.

THE memory of John Henry Pestalozzi, the great Swiss schoolmaster and educational reformer, is to be honored this year, the centenary of his birth, by special exercises, educational exhibits and conferences in Zurich, Switzerland, the city of his birth. On August 1, 2 and 3 an International Educational Congress has been planned to which the teachers of America and Europe are especially invited. A national advisory committee has been appointed consisting of Dr. Nicholas Murray Butler, president of Columbia University; Dr. John J. Tigert, United States Commissioner of Education; Dr. Frank P. Graves, New York State Commissioner of Education, and Dr. Lillian Stroebe, professor at Vassar College. The organization of the work for the Zurich convention and the transmission of the Swiss official invitation to the American teaching profession have been placed in the hands of Dr. K. E. Richter, of the College of the City of New York.

ACCORDING to press reports, the directors of the National Education Association meeting at Dallas, Texas, have adopted a budget of $422,000 for 1927, the largest single item of which was $92,000 for the journal of the association. Other items were: $21,000 for the secretary's office; $17,000 for the executive division; $21,000 for the division of publications; $27,000 for the division of research; $22,000 for records and membership, and $18,000 for a membership campaign.

A CERTIFICATE of incorporation has been granted to the Institute for Child Guidance of New York City. The object of the institute is to carry on research in the field of "mental hygiene for children," to train psychologists in child work and study the general problems of children. Directors of the organization are Bailey B. Barritt, Barry C. Smith, Everett Kimball, Porter R. Lee, Dr. William A. White, of St. Elizabeth's Hospital, Washington; Dr. C. Floyd Haveland, medical director at Ward's Island; Dr. Frank E. Wood, E. Williams and Mildred C. Scoville.

IT is reported in the *Princeton Alumni Weekly* that the university has obtained $5,119,540, a fourth of the $20,000,000 required for its program. The fund will be used for increasing the salaries for teachers, scientific research, retiring allowances, insurance for faculty members, an engineering building, a chemical laboratory, a new library, a new chapel, a building for undergraduate activities, and for new dormitories and faculty homes.

THE campaign conducted by the Johns Hopkins Half-Century Committee for the endowment funds of both the university and the hospital yielded $7,033,019 from 3,992 subscriptions, according to the final report submitted by the general chairman, Daniel Willard, at a special meeting of the Board of Trustees on February 23.

SPECIAL CORRESPONDENCE

THE EXPERIMENTAL COLLEGE OF THE UNIVERSITY OF WISCONSIN

THE University of Wisconsin hereby announces the establishment of an Experimental College which will begin operation with the opening of the academic year 1927–28.

By a virtually unanimous vote, the faculty of the College of Letters and Science has, so to

say, roped off, within its own boundaries, a limited area large enough to accommodate two hundred and fifty students and an adequate teaching staff, and has given to this special teaching group a mandate to make, within this limited area, an attempt to find improved methods of approach to the work of the freshman and sophomore years.

Dr. Alexander Meiklejohn, former president of Amherst College, and now Brittingham professor of philosophy at the University of Wisconsin, has been made chairman of this Experimental College unit.

The faculty of the College of Letters and Science has absolved the teaching staff of the Experimental College of any obligation to follow existing academic traditions respecting either the content of the curriculum or the methods of teaching. In short, the faculty of the College of Letters and Science assumes toward the teaching staff of the Experimental College exactly the attitude the administration of the university would assume toward an individual scientist for whom it had provided new laboratory facilities and to whom it had given a mandate to prosecute a free and unhampered research, let us say, on the problem of cancer or in the field of colloid chemistry.

The purpose of the Experimental College is not to make minor curricular adjustments or to elaborate some new form of orientation course. Its purpose, as broadly stated in the faculty resolution, is "to formulate and to test under experimental conditions suggestions for the improvement of methods of teaching, the content of study, and the determining conditions of undergraduate liberal education."

The College of Letters and Science is thus creating a college within a college by the simple device of segregating a certain number of its students and of its faculty under special circumstances and with a special commission.

The student body of the Experimental College will be made up of students who have elected to subject themselves to its disciplines rather than to enter the regular freshman and sophomore courses. Its students will, however, have regular standing as members of the freshman and sophomore classes of the College of Letters and Science and of the university.

Admittance to the Experimental College will be granted on application. If selection among applicants becomes necessary, it is understood that the chairman and the teaching staff will undertake to secure as nearly as possible a cross section of the regular student body. The Experimental College is not designed for the instruction of exceptional students only, but as a study in the problems of general instruction.

At the University of Wisconsin and elsewhere fruitful experiments are under way on the problem of the exceptional student. Special consideration is likewise being given to the problem of the less gifted, if not mediocre, student. The Experimental College does not fall exclusively within either of these groups of experiments; it represents rather an attempt to throw added light upon the educational problem of those colleges and universities which are not free—even if they desired freedom—to devote their energies solely to a selected body of superior students. And it is especially interested in the establishment of repeatable experience. The University of Wisconsin is not concerned to display, through the Experimental College, merely the isolated excellence achievable by a small group of hand-picked teaching geniuses that might by dint of search and seizure be brought together for a time. The university is seeking improved educational processes that may be employed throughout the institution in the instruction of its regular student body, made up as it is of minds of varied types and varied tempos.

The faculty of the College of Letters and Science has provided that students who complete satisfactorily the work of the two years in the Experimental College shall be given full junior standing in the College of Letters and Science; they will, in short, be regarded as having taken the required studies of one of the two regular courses.

Two other credit provisions may be mentioned: Only those students who have done the regularly required work in foreign language will be accepted as candidates for the degree of bachelor of arts. And sophomores in the Experimental College will be allowed to take a regular course outside of it but inside the College of Letters and Science in case such a course is necessary for a desired major.

The plan provides that the students of the

Experimental College shall be residents of certain sections of the new dormitories for men, and that the teaching staff shall have studies and conference rooms in the same sections. It is believed that this combination of residential and instructional life will contribute to the unification of the life of the college, and that the establishment of easy access of students to teachers and of teachers to each other is educationally desirable.

This combination of residential and instructional life presents difficulties that make it necessary, for the time being, to carry on the work of experimentation only with men.

The members of the teaching staff of the Experimental College will be members of the regular university faculties doing a certain amount of teaching in the regular colleges of the university alongside their work in the Experimental College.

It is intended that the numerical ratio of teachers to students in the Experimental College shall be approximately the ratio maintained in the College of Letters and Science. It is believed that the practical value of the experiment will be greater if the costs of instruction in the Experimental College can be kept measurably the same as the costs of instruction in the College of Letters and Science generally. If the experiment should throw up fruitful results, their possible adoption throughout the institution will not then be handicapped by the fact of excessive costs.

Two attendant aspects of this experimental venture demand brief mention.

First, it offers to the student the advantages of experimentation with none of the ordinary risks of experimentation. The students who enter the Experimental College for two years will not be penalized in credits when they pass on to the junior and senior years of their work for the bachelor's degree. They are fully protected by the faculty legislation which provides that students who have completed the work of the two years of the Experimental College to the satisfaction of its teaching staff will be granted full junior standing exactly as if they had pursued the regular freshman and sophomore courses in the College of Letters and Science. Furthermore, the students will not be subject to educational risk, because the intrinsic quality of the projected teaching staff of the Experimental College is ample guaranty that, whatever the curricular content and methods of study, the two years of intimate association between students and teachers will effect an intellectual stimulation and produce an intellectual result of sound educational and collegiate value.

Second, by this device the University of Wisconsin frees its hands for the boldest experimentation in higher education. With two hundred and fifty students who have freely elected to enter the Experimental College, the university may test out forms of curriculum and methods of teaching so radically different from the prevailing curriculum and method that no university would feel justified in adopting them for its entire student body in advance of satisfactory tests under controlled experimental conditions.

The absence up to date of any machinery for adequate experimentation in higher education comparable to that provided in this Experimental College has undoubtedly made the continuous improvement of the processes of liberal education slower than necessary. The matter of cost has doubtless been an important factor in this retardation. An experimental college or its equivalent has usually been considered in terms of a separate institution with extensive buildings and expensive budget. This factor of costly plant and all the attendant expense of a separate college with separate administrative machinery has doubtless played an important part in preventing the establishment of such experimental facilities even where their need has been recognized. By making the Experimental College a simple segregation of a certain number of its students and a certain number of its teachers under special circumstances, the University of Wisconsin has hit upon a device that makes possible an experimental college with a budget little, if any, in excess of the normal amount of funds that would be necessary to provide instruction for its two hundred and fifty students were they to be taught in the general student body of the College of Letters and Science.

The specific plans of this Experimental College and the personnel of its teaching staff will be announced well in advance of the opening

of the academic year 1927–28, when it is scheduled to go into operation.

For the first year, only the one hundred and twenty-five members of the freshman class will be admitted, since the coherence of the two years of the experimental curriculum will require that the students begin at the beginning, if they are to realize the results of the new approach to the two years, and if the university is to have a valid basis for assessing the results of the experiment.

GLENN FRANK,
President

MADISON, WISCONSIN,
FEBRUARY, 1927

QUOTATIONS

HAWAII'S SCHOOL PROBLEM

IN upholding the traditional American view of the relation of the state to education, the decision of the Supreme Court of the United States declaring unconstitutional a Hawaiian law restricting the Japanese-language schools will at the same time be an aid to friendly relations between Japan and America and make more difficult the task of the Hawaiian government in dealing with the complex racial problems in the islands. The law, passed in 1920, had as its object to lessen the influence of the foreign-language schools, which many felt were an obstacle to Americanization. The Japanese protested against the restrictions imposed and after prolonged litigation have won their point.

According to estimates made by the Hawaiian government in 1926, the Japanese comprise about 40 per cent. of the total population of the islands. They outnumber the Americans and Europeans nearly 3½ to 1, forming the largest single racial element. About three fifths of these Japanese are American citizens, having been born in the Territory. The remainder are natives of Japan. Together they furnish more than half the entire school population of Hawaii, outnumbering the Americans and Europeans in the schools about 15 to 1.

In so far as the law restricting the Japanese schools in Hawaii had been regarded by Japan as unfairly discriminating against the children of Japanese, the decision of the Supreme Court will be welcomed by all interested in removing the causes of friction between Japan and the United States. But the problem of foreign-language schools will now loom larger than ever in Hawaii. Its significance is readily grasped when it is realized that only 2,000 of the 58,000 children in the Hawaiian schools are American or of kindred stocks. It is the ideal of the American government in the islands to consolidate the different racial elements there and, since the natives of Hawaii regardless of ancestry are American citizens by law, to help make them Americans in fact. That this implies a thorough knowledge of English and a general acquaintance with the subjects taught in American schools seems clear. But, if most of the children are to be taught primarily in other languages and in accordance with the traditions of other lands, the tendency will be to accentuate rather than weaken racial barriers.

Fortunately, the association of races from the ends of the earth has been happy in Hawaii. Next to the Japanese, with their 130,000, the Filipinos have the largest share of the population, numbering 50,000. There are about 28,000 Portuguese, 25,000 Chinese and only about 21,000 of the old Hawaiian stock. Besides those classed as "straight" Hawaiians are nearly 15,000 "Caucasian Hawaiians" and 9,000 "Asiatic Hawaiians." These various groups live harmoniously together and are proud of their allegiance to the United States. But they obviously present questions even more puzzling than those in some of our cities where the European-born population is very large and where the groups seek to perpetuate the customs and language of their ancestors. The decision of the Supreme Court will not make easier a solution of these racial problems.—*The New York Times.*

DISCUSSION

THE "HONOR" SYSTEM

COMMENTS OF A LAYMAN UPON A SITUATION DESCRIBED BY A STUDENT

Dear Mr. Gavit:

After reading your interesting and helpful book, "College," I feel called upon to ask you for suggestions in a problem very real in this college. I am a student in one of the South's oldest and best-known institutions of learning

—a place famed for traditions and conservatism and gentlemanly conduct.

Into the school has crept an element that seemingly does not know the value of *honor*, and believes that in cheating he has pulled something over on the faculty. In spite of the traditional honor system which dates from 1856, things were in such a state that the faculty demanded of the senior council that a change be made in the code of honor.

A change was made and *every* paper is now pledged as follows: "I certify upon honor that I have neither given nor received assistance on this paper and that I will report any one seen cheating." The addition of the last phrase has caused quite an uproar and every one seems to agree that it is unnecessary. Yet every student declares that he will not report any one cheating.

In recent years the faculty has expelled several, both boys and girls, without the knowledge of the student body. It seems that some of the difficulty would be removed if the student council were allowed to deal with all such matters and make example of some of the cases.

What can we do to save the honor system, of which this institution has long been proud?

———————.

C/o Thomas Cook & Son,
Geneva, Switzerland,
January 12, 1927.

Dear Mr. ————————:

Your letter of December 22nd has had to follow me to Switzerland; hence long delay in reply.

The situation which you describe is a very common one; almost universal indeed in American colleges which have the so-called "honor system." So-called, I say, because it is not an *honor* system at all. In the form which you describe it is not an honor system, but a *spy* system. It is rotten to the core, and I am happy to observe that it does not succeed anywhere. When it does succeed anywhere it will be a very bad and discouraging sign, and when I hear of it I shall begin to believe—what I do not in the least believe now—that the young generation is going to the dogs, as the old generation has already done.

When a man is watched by anybody except himself, he is not upon his honor. Honor has nothing to do with such a situation. The system that you describe is in fact a game between faculty and students, and when a student successfully cheats he has in fact put something over on the faculty, despite the fact that the faculty has played with loaded dice—as it usually does. The average college faculty is a dismal lot of old ladies (I use that term in the contemptuous sense), without memory or imagination and devoid of the sense of humor. The *men* among them—usually, but not always, there are a few—are smothered among the others, most of whom have lived all their lives in thimbles, without experience of the actualities of life; their lungs are clogged with the musty dust of books; they do not understand and have small use for young people. They are the custodians of "subjects," and spend most of their energies in jealousy among themselves and the petty politics of departmental intrigue.

The instinct which leads the best characters among your fellows to abhor the spy business and refuse to participate in it is a sound one. *Gentlemen* do not do that sort of thing, nor respect those who are willing to do it. I will wager that the *men* in your faculty, and in your student council, feel about it just as you and I do.

I said just now that the average faculty was without memory or imagination: I had in mind the fact that any he-person among them otherwise would remember how the students of *his* day felt about spies and tattlers—how he felt himself—and would imagine unerringly the reaction of the student body to it now. If he had any sense of humor he would laugh to see that old bunk still alive! Naturally, those who in their own student days were spies and tattlers would not feel that way; they would not react with scorn to the proposal to insult the feelings and intelligence of the student body. To them it would seem quite all right.

If I were to take an examination under the conditions you describe, I would do the best I could without reference to what anybody else might be doing—I should be too busy to be watching my fellows—and at the end I should

willingly enough (though with a sense of humiliation at its being thought necessary to require it of me; I should have hoped it would be taken for granted by those who thought me a gentleman or even barely honest) I should write: "I have neither given, nor received, nor thought of giving or receiving, any assistance in this examination." I should carefully erase any allusion to reporting "anybody seen cheating," and being the kind of person I am I very likely should add, "Not by a damsite!" Or words to that effect.

That phrase absolutely destroys every aspect of "honor." It simply substitutes for the dreary business that the professor must do in watching his prisoners, the cheaper and (supposedly easier) detective service of the students themselves. It tempts and incites the student to say within himself, "Oh, very well, if that's the game, I will beat you at it." Of course, a boy rightly brought up, with self-respect and general manliness—leaving out of consideration any cowardly fear of being caught and subjected to punishment or inconvenience—will not cheat at any sort of competition. It is a dirty business, and self-respecting fellows do not do it, for their own sake. Nobody with a decent sense of fair play does it. But it is abuse of the fine word and idea of "honor" to mention it in connection with this petty business.

Suppose that the professor should say at the beginning of the examination something like this:

"Now, fellows, here is the examination paper, and here you are to do the best you can by your own unaided efforts with it. I am going out; nobody will watch you. When you get through, put your papers on the desk here. I trust you all, completely. You could cheat—not me but yourselves and each other—but I don't believe you will."

What would be the reaction of your crowd to that? What would be the social fate of any student who was "seen cheating"? I shouldn't like to be such a person myself. And if I were caught at it I would rather be fired by the faculty or disciplined by the student council than go on living there under what I should know and feel to be the contempt of my fellows—not to mention the professor who probably would see in my paper the evidences of my crime against honor. For it is when you are *trusted* that cheating becomes a crime, not against statute but against honor.

The whole thing is absurd and unnecessary. The whole business of examinations, as ordinarily conducted, is a ridiculous survival of antiquity. In the first place, especially in the smaller colleges, any instructor worth powder enough to blow him into the waste-basket, knows what every student is doing in his work, and could rate him without any examination at all. He knows which student has really worked with industry and intelligence, which can "cram" enough to get by with a specific paper, and which is stupid or a loafer and ought to be sent home to work in a grocery or carry a hod.

In very large groups, however, the instructor can not know his individuals in this way, and examinations probably are needed. They have a value, too, for other reasons. But I would personally undertake to frame an examination, in any subject from arithmetic or spelling to astronomy or the history of philosophy, from differential calculus to dressmaking, in which I would defy anybody to cheat. They could bring along their books, and have their shirts covered with notes; they could ask their neighbors in the examination-room, or go out and consult the traffic-cop on the corner. They could take the question-paper home and bring it back next week—no matter what they did, the result would expose their quality of intelligence, and what they had got out of the subject, and out of me, the professor. They could not "cram" for it, in the ordinary sense; if they did, in such a way as to make good in the examination—why, very well, so much the better. But in order to pass the examination, they would have to *understand the subject*, and that is what we are after, isn't it? A man who can get to understand a subject by reading his head off for one whole night, or two, or three, is a pretty good boy. As a matter of fact, it can't be done by more than one person out of a million. But many a chap can fill the top of his mind with enough ephemeral knowledge to pass the ordinary thing called an examination, and "passing" that isn't any indication of either real knowledge or intelligence.

There isn't any different element in your college or school (you don't name the institution) now from what there was twenty, or fifty, years ago. Cheating in examinations was quite as much a "problem" in your grandfather's day as it is now. The only new thing is the introduction of a bastard thing called "the Honor System," which has all the evils of the old teacher-policeman kind of thing without its discipline, with the addition of a pale, sentimental cambric-tea wash bearing small relation to Truth.

Sincerely,

JOHN PALMER GAVIT

REPORTS

VOCATIONAL EDUCATION IN THE UNITED STATES: PRINCIPLES AND ISSUES

THE writer, having been asked to explain to a class of non-American students the principles and issues now actively under consideration by those promoting vocational education in the United States, prepared the following digest.

I. PRINCIPLES OF MEANING NOW ACCEPTED BY THE WELL-INFORMED

(1) The term "vocational education" denotes training and instruction towards *performance* powers in a recognized vocation. It does *not* mean education towards *appreciations* of vocations which one will not expect to enter to earn a livelihood. It should *not* denote or suggest vocational guidance. It is not properly applicable to manual training or industrial arts instruction or training where these are designed to add to *general* education.

(2) Training and instruction towards good performance abilities or powers in any and *all* vocations is included under the designation "vocational education"—for the professions and for the homemaking callings no less than for the commercial, farming and industrial vocations.

(3) Since competency to perform a given vocation is often a composite embracing masteries of skills, working masteries of certain items of technical knowledge, and some particular social and hygienic insights, a given school or other agency can sometimes be recognized as giving only one, or only a few phases of the total training and instruction called for as total competency in that vocation. For examples, an extension vocational course may be designed to give only technical knowledge. An apprenticeship course may aim to give only skills. And, in each of these fields, a given course or school may intend to give only a first stage, last stage, finishing stage, or even, perhaps, pre-apprenticeship stage of the total competency demanded in the vocation.

(4) There is no such thing as "general vocational education." Only rarely are there genuine prevocational studies—that is, pre-medical zoology, or pre-carpentry drawing, or pre-engineering mathematics. Only rarely, too, are there real "related technical studies" which are "related" in common to two or more vocations, *e.g.*, bricklaying and printing, or machine shop practice and carpentry. For these there is little or no "common" industrial mathematics or industrial drawing.

(5) Present practice is most unfortunate in applying the singular "a vocational school" to a school obviously intended to give some training and instruction for several vocations or containing two or more vocational departments. It should, therefore, be accepted that the term "a vocational school," like the term "a professional school," should signify a school training for only one vocation. Of course it is administratively desirable at times to have two or more vocations taught in whole or in part in one building. But if a descriptive title is sought for such a school its plurality of vocations trained for should be indicated.

II. PRINCIPLES OF PURPOSE

(1) The ancient and once universal processes of vocational education were based on the methods of "followership." Young workers acquired skills in, and knowledge of a given vocation by watching, imitating and copying fathers, mothers and other elders. For complicated and "secret" vocations followership methods were in time superseded by "regularized apprenticeship" methods. When certain vocations became still more exacting—as in medicine, war leadership, painting, engineering—apprenticeship methods gave way to vocational training schools—which, at first, usually supplemented apprenticeship, but in time took over both training in skills and instruction in technical knowledge.

(2) Under contemporary American conditions 60,000,000 or more adult workers (41,000,000 "gainfully employed" as reported in the 1920 census and 20,000,000 homemakers, estimated), all of whom have had one kind or another of vocational education, have probably been the products of different systems as follows:

(a) Vocationally trained quite fully in voca-

tional schools (of medicine, nursing, teaching, stenography, pharmacy, machine shop practice, theology, etc.). (Some 3,000,000 in all.)

(b) Vocationally trained to fairly high standards under systematic apprenticeship (printers, engravers, locomotive engineers, bricklayers, some carpenters, a few machinists, an occasional salesman, etc.). (Some 3,000,000 in all.)

(c) Vocationally trained by fairly good "followership" methods (some farmers' sons, some homemakers, many store clerks, some seamen, etc.). (Some 4,000,000 in all.)

(d) Vocationally trained by "pick-up" methods (degenerated from followership methods in modern factory labor, mines, salesmanship, farming, domestic service, homemaking, etc., etc., wherever semi-skilled, miscellaneous labor is reported). (Probably at least 50,000,000 in all.)

(3) Because apprenticeship methods have become either entirely or partly inadequate to modern demands in certain modern industries, *one* of the purposes of the modern movement *for vocational education in schools* is to supplement or to replace in whole or in part antiquated apprenticeship training, as has long ago happened in medicine, teaching (in England), law, nursing and other vocations now prepared for wholly in schools.

(4) Because "followership methods" of vocational training are precarious, poorly led, and in such cases as the farming and homemaking vocations, utterly inadequate to impart recently discovered technical knowledge, the modern movement for vocational education in schools urges and demands vocational schools here also to replace antiquated methods.

(5) Because "pick-up" methods are in many cases demonstrably horribly wasteful of the time, energies, vocational enthusiasms and creative impulses of millions of workers who struggle to "beg" or "steal" items of skill or knowledge from fellow-workers, driving foremen, and through vague self-directed trial-and-error learnings, the leaders of the "current movement" for vocational education in schools ask for vocational schools to supplant these wasteful, destructive and even ruinous methods.

(6) Because in many trades or other vocations in which apprenticeship methods of training still prevail, masters and journeymen workers desire that properly equipped schools shall give some *pre-apprenticeship training*, or *extension instruction*, or *technical training parallel* to *apprenticeship work* to aid in the more complete vocational training of the novice.

III. PRINCIPLES OF PUBLIC RESPONSIBILITY

(1) To the problem as to whether public funds and public control should be used to support any species of vocational education there is now just one reply given by well-informed students of sound public policy, namely: any given type of vocational education is entitled to public support and control no less than is any species of general education whenever it can be demonstrated that: first, there is a large social need for the services rendered by trained workers in the vocation, or that there are substantial numbers of persons who need educational help in acquiring competency in that vocation; and, second, that non-public agencies of support and control are not adequate to give the needed education.

(2) The numbers of schools required to satisfy the needs of any given vocation within a state will inevitably be very different from the number of elementary schools, secondary schools, or universities required. Hence it must not be assumed that a district suitable for the support of elementary and secondary schools is, except in cases of the largest cities, a district suitable to the support of a variety of kinds of vocational education. Perhaps the State of Ohio requires no more schools of printing than it does normal schools. Perhaps the State of California needs only ten schools for the training of automobile repair mechanics.

(3) Hence, for the best support of vocational schools, states should either be districted along county or other lines different from the districting required for high schools, or else in many cases the state should make itself the district for the support of at least all the less generally required types of vocational education.

(4) There are several reasons why a county like Westchester County in the state of New York (having a population of some 700,000) should be organized as an administrative unit for the conduct of several forms of vocational education:

(a) The county embraces not only a few cities of medium size, but also many smaller cities or towns, no one of which by itself possesses population or resources equal to the needs of a local school for any particular vocation.

(b) There are some types of vocational training—*e.g.*, automobile repair, printing and gardening—for which even Yonkers or other larger cities are not large enough to justify a separate school.

(c) Since vocational schools of any kind should be provided primarily for the *benefit of youths* and only secondarily for the benefit of employers, labor organizations or communities, it will be found that the *needs for training* will seldom coincide with strictly local developments of particular trades or other vocational openings.

IV. Principles of Organization

(1) *General education* is valuable irrespective of vocations to be followed—valuable for personal culture, for right civism, for conservation of health. The central values of all elementary and junior high school education are general, not vocational. All usual high school studies are to be justified as general, not vocational education. Commercial courses tend in some cases to become vocational—perhaps only for the stenographer-typist calling. High school manual training has rarely any true vocational functioning. Home economics, now found in nine thousand high schools, is as yet without clear vocational aims.

(2) General education is now in America relatively very democratic—equally open to rich and poor, to all social classes, and to nearly all grades of ability. In contrast, vocational education is shamefully undemocratic. Plenty of vocational schools—professional and some others—are provided for the gifted and prosperous. Almost none are provided for the ungifted and poor—only the "sink or swim" of pick-up methods. Forty million dollars a year is spent on stenographer-typist training—and a few closely related "clean collar" clerical callings—but nothing for the mining and factory callings—the grimy vocations. Perhaps $25,000,000 a year for "agricultural leadership," and only a sop for the "dirt farmer" callings. Some hundreds of thousands on printing, electrical work, and machine shop practice—which already have apprenticeship—but nothing on the textile and other factory callings followed by millions.

(3) Hence the present wide-spread demand from social workers, parents, employers, trade unionists (to some extent) and unprejudiced educators that, through appropriate public schools, provision be made for direct and honest vocational education for such vocations as seem to need it—probably hundreds, either for the sake of the public or for the sake of the workers.

But direct, efficient and honest vocational education lends itself very little to traditional academic methods—a fact academic minds find it hard to grasp. Hence the innumerable "substitutes," "imitations," and "prevocational approaches" now so popular in junior and senior secondary schools and elsewhere—the shopwork, industrial mathematics, mechanical drawing, technical subjects, classroom agriculture, "general" salesmanship. Vocational guidance, most valuable as a phase of general education, is by some supposed to help vocational training.

(4) Few serious difficulties need be expected in establishing good vocational training for any vocation—tailoring, street car driving, coal mining, poultry farming, restaurant table-waiting, high school teaching of physics, sea-faring, locomotive driving, bricklaying or shoe selling—if direct approach is made to the task. Any educational executive, given ample money, could in a year readily establish a specific vocational school for any one of the above callings—if he did not have to take pupils at 14–16 years, did not have to incorporate this school into an existing high school, and did not have to affiliate a series of general studies.

But: few forms of vocational training can profitably be taken by children—persons under sixteen years of age; few can be accommodated within buildings and faculties devoted primarily to "general" schools; few can be effective without supervised part-time productive work in commercial establishments; and few can carry a load of "correlated" liberal or college preparatory studies.

(5) Hence, if America is to have honest, efficient, and democratic vocational education for each of the several hundred callings now manifestly in need of it, special schools in each case must be provided. Sometimes these can well be located under the same roof as schools of general education—for example, stenography, and drafting. Sometimes *half* the school can be located there and the other half on the soil, in barns, in homes, on buildings being erected in the neighborhood—wherever practical work for the vocation can be shared in. (It is very hard for academic minds to think of a "school" as other than an enclosed space with seats, blackboards, etc. They find it almost impossible to realize that the major part of an efficient school for farming should be on the land, or in poultry yards—that often the more vital part of a school of homemaking is in home kitchens, bedrooms and laundries; and that the major part at least of a school of street car driving must be on street cars).

Often, however, no part of a vocational school can profitably be located in high-school buildings. A really good school of printing in New York City should be located, not in the outskirts of the city, but in the printing center. A school of navigation had best be located on a vessel. Specialized schools for shoe selling, for book selling, for carpet selling and the like had best be located in de-

partment stores. Certainly no sane person would propose to take schools of bedside nursing away from their present locations in hospitals.

(6) Very seldom can vocational schools be administered on the same *area basis* as high schools. We already see that it requires the entire country as a district for West Point; an entire state for a medical college; and perhaps a third of a state for a normal school.

Each very large city could maintain one good school of printing, one of carpentry, one of street car driving and one of shoe repairing. But less concentrated areas of settlement need very large districts. Perhaps one good school of printing could serve all western New York, or the State of Delaware. Hence the almost silly Utopianism of the "Cosmopolitan High School."

V. SOME ISSUES DOGMATICALLY PRESENTED

(1) There is no future for true vocational education in any junior high schools or under the age of sixteen at the lowest—that is, under standard of living conditions now developing in America.

(2) Only a small percentage of girls will, or should, take realistically vocational homemaking education under nineteen to twenty-three years of age. (Hence high school home economics should be primarily cultural, except for perhaps ten per cent. of the girls, usually those who can have no hope of graduating from ordinary academic subjects.)

(3) Good vocational education for *all* the vocational beginners (ages 16–22) and for *all* those seeking upgrading into promotional or leadership vocations (ages 19–40) will not cost enormous sums, largely because in so many cases twelve to thirty weeks of intensive eight-hour per day training will suffice for the great majority of manufacturing, mining, transportation and selling vocations. Probably $200,000,000 per year (one tenth of what we now spend on public schools) would be ample to provide full-time training for all vocations except the professions and farming.

(4) There is only a poor future for vocational education in evening schools, compulsory continuation schools, extension courses, and other fragmentary offerings, too often coming to the individual when tired. The real future belongs to "full-time" training, for either beginners or "upgraders."

(5) Vocational education and general or liberal education corrupt and nullify each other when offered in the same school or in programs of closely alternating courses.

(6) All good vocational training should be operated on an "individual" basis—some form of Dalton plan, with project bulletins, etc.—and be progressively led into "self-education."

(7) Vocational schools should rarely produce commercial wares or products. Rather their students, apprenticed in effect to the school, should be placed out in commercial concerns for practical training, after certain very slightly initiatory experience in school shops, homes, farms, ships, railways or mercantile enterprises.

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EDUCATIONAL RESEARCH AND STATISTICS

CONSTANCY OF THE I. Q.

FROM time to time the value of the results from intelligence tests obtained at some time prior to an occasion for their use has been questioned by interested teachers or parents. Numerous studies[1] have been made of the constancy of the IQ, and all have pointed to the fact that it remains relatively the same from the time of one test to that of the next, whether the time interval between the two tests is two months or two years or longer.

This report offers some additional evidence in answer to the familiar question: "How much may we rely upon test results obtained at some previous time? That is, what is the degree of IQ constancy as shown by a retest of the same child?" The writer is indebted to Miss Bertha Trowbridge, visiting teacher of the Francis W. Parker School of San Diego, for the data which form the basis of this discussion, IQs from tests and retests of fifty senior high-school students by the Terman group test of mental ability. In this connection it is well to recall that mental ages above sixteen years should be considered rather as scores than as true mental ages. However, for most purposes, such mental ages are used in securing IQs. The data are presented in two histograms, one for the distribution of IQs from the first test, the other for the distribution of IQs from the retest.

[1] See Dickson, V. E., "Mental Tests and the Classroom Teacher." Yonkers, New York: World Book Company, 1923. P. 66.

The time interval between tests and retests ranged from six months to one year and eleven months. An inspection of the original data secured by the use of the two forms of the test showed clearly that differences in IQ were not materially affected by differences in the length of the time interval between the applications of the tests. Certain statistical measures based upon the two paired series of IQs are given in Table 1. All the calculations were performed twice to insure accuracy. The coefficients of variability are given as a measure of the relative variability in the distribution of the IQs from the tests and retests of the fifty pupils. Table 2 summarizes the changes in IQ discovered by the retests.

TABLE 1

MEASURES OF CENTRAL TENDENCY, OF VARIABILITY AND OF RELATIONSHIP OF THE TWO SERIES OF IQs

	IQ distribution	
	First test	Second test
Range	87–137	86–130
Mean	110.5	109.5
Median	111.4	110
Quartile 1	101.3	102.5
Quartile 3	118.8	114.8
Standard deviation	12.4	9.8
C. of V. (Pearson)	11.3	8.95
r (Pearson) with P. E.	.862 ± .026	

TABLE 2

MEASURES OF CENTRAL TENDENCY AND OF VARIABILITY OF THE CHANGES IN IQ DISCOVERED BY THE RETEST

	Number of pupils	Range of variation	Median
IQs increased during time interval	24	1– 8	4.7
IQs decreased during time interval	22	1–13	5
IQs remained constant	4	——	——

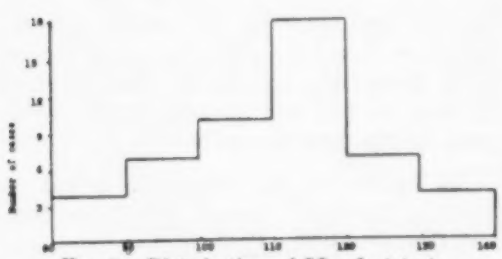

FIG. 1. Distribution of IQs, first test.

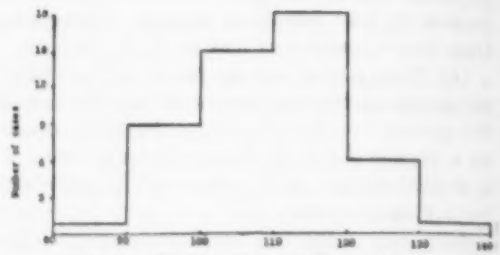

FIG. 2. Distribution of IQs, retest.

There were relatively few shifts from one mental level to another. The writer considered an IQ above 110 as superior; an IQ between 90 and 110 as average; and an IQ below 90 as inferior. It was interesting to note that three children changed their IQ from the inferior to the average group, while two children dropped from the superior into the average group. The remaining forty-five students were found to be in the same mental level group both after the test and after the retest.

The mean and median scores on the two series of IQs would seem to indicate that this is a selected group within the school. This is not true, however, as an effort was made to include only typical pupils as shown by their achievement record in the school. The school has been fortunate in attracting children of superior mental ability. The coefficient of correlation is very high, but it should be remembered that this result may be somewhat in error due to the unreliability factor of the test.

In the main this report is in agreement with that prepared by Nettels[2] which was based on data also obtained by the use of the Terman group test of mental ability. In both cases, very little variation of IQ was discovered by the application of the second form of the test.

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[2] Nettels, C. H., "A Study on the Constancy of the IQ," *Educational Research Bulletin* (Los Angeles), 6: 9–10, Nov., 1926.